

***In the Claims:***

Please cancel claims 3, 6, 7, 8, 26, 27, 42 and 57 without prejudice or disclaimer.

Please substitute the following claim 1 for pending claim 1:

A 3 M/C  

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1. (Once amended) A method of characterizing single circulating epithelial cancer cells obtained from a body fluid comprising the concurrent measurement of multiple cellular markers using fluorescent probes, wherein said probes emit different wavelengths of light to distinguish multiple cellular markers expressed in said single cell using fluorescence microscopy.

Please substitute the following claim 34 for pending claim 34:

A 4 M/U  

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34. (Once amended) The method of claim 1, wherein said probe is directed to a cellular target and is not a nucleic acid.

Please substitute the following claim 35 for pending claim 35:

A 4 M/U  

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35. (Once amended) The method of claim 34, wherein said probe comprises a protein or peptide.

Please substitute the following claim 36 for pending claim 36:

36. (Once amended) The method of claim 35, wherein said probe is an antibody.

Please substitute the following claim 37 for pending claim 37:

37. (Once amended) The method of claim 1, wherein said probe is a nucleic acid directed to a cellular target.

Please substitute the following claim 38 for pending claim 38:

38. (Once amended) The method of claim 37, wherein said probe comprises DNA.

A4  
Cont

Please substitute the following claim 39 for pending claim 39:

39. (Once amended) The method of claim 37, wherein said probe comprises RNA.

(A) 17

Please substitute the following claim 40 for pending claim 40:

40. (Once amended) The method of claim 1, wherein said probes comprise  
(i) probes which are directed to a cellular target and are not a nucleic acid,  
(ii) probes which are a nucleic acid directed to a cellular target, or  
(iii) a combination of (i) and (ii).

Please substituted the following claim 41 for pending claim 41:

41. (Once amended) The method of claim 40, wherein said probes are selected from the group consisting of identification probes, proliferation probes, cell cycle arrest probes, oncogenes, and hormonal probes.

Please substitute the following claim 43 for pending claim 43:

*MCL* 43. (Once amended) The method of claim 40, wherein said probes comprises an epithelial cell-specific probe.

*A5*

*Sony* Please substitute the following claim 44 for pending claim 44:

*44* 44. (Once amended) The method of claim 40, wherein the probes comprise a tissue-specific probe.

Please substitute the following claim 47 for pending claim 47:

*A 4* 47. (Once amended) The method of claim 40, wherein said probes are used to detect a hormone receptor or a hormone receptor gene for the enumeration of copy number.

Please substitute the following claim 53 for pending claim 53:

*A 7* 53. (Once amended) A method of characterizing a single circulating epithelial cancer cell preparation obtained from a body fluid comprising adhering a circulating epithelial cancer cell preparation to be characterized onto a surface, fixing said cell preparation with a fixative solution, incubating said cell surface containing fixed cells with multiple probes directed to desired cellular markers, wherein said multiple probes have the ability to fluoresce when excited at different wavelengths, and examining the cells by fluorescence microscopy for identification of positive cells for each selected cellular marker, wherein said cancer cell preparation is isolated from a body fluid using a negative selection process.

*QW*  
*b*

Please substitute the following claim 54 for pending claim 54:

A7  
cont'd  
Appl. No. 09/430,175  
in file or elsewhere

54. (Once amended) A method of establishing a characterization profile of a circulating epithelial cancer cell obtained from a body fluid comprising characterizing a single cell environment, wherein the concurrent measurement of multiple cellular markers using fluorescent probes, wherein said probes emit different wavelengths of light to distinguish multiple cellular markers expressed in the single cell using fluorescence microscopy.

Please add the following new claims:

MJL  
AS  
59. (New) The method of any one of claims 1, 53 and 54, wherein said circulating epithelial cancer cell is a prostatic cancer cell.

60. (New) The method of any one of claims 1, 53 and 54, wherein said circulating epithelial cancer cell is a breast cancer cell.

61. (New) The method of any one of claims 1, 53 and 54, wherein said circulating epithelial cancer cell is selected from the group consisting of liver, kidney, colon, rectum, gastric, esophageal, bladder, brain, ovary, pandreas and lung cancer cells.

62. (New) The method of any one of claims 1, 53 and 54, wherein said body fluid is selected from the group consisting of blood, enriched blood fractions, saliva, lymph, spinal fluid, semen, amniotic fluid, cavity fluids, and tissue extracts.

63. (New) The method of any one of claims 1, 53 and 54, wherein said circulating epithelial cancer cell is obtained from about 5 to 75 ml of blood.

64. (New) The method of any one of claims 1, 53 and 54, wherein said circulating epithelial cancer cell is obtained from about 5 to 25 ml of blood.

*Mb C17*  
65. (New) The method of any one of claims 1, 53 and 54, wherein said circulating epithelial cancer cell is obtained from about 15 to 25 ml of venous blood.

*AS CMT*  
66. (New) The method of any one of claims 1, 53 and 54, wherein said circulating epithelial cancer cell is obtained from about 20 ml of blood.

67. (New) The method of claim 63, wherein said circulating epithelial cancer cell is a prostatic cancer cell.

*Mb UJ*  
68. (New) The method of claim 64, wherein said circulating epithelial cancer cell is a prostatic cancer cell.

69. (New) The method of claim 65, wherein said circulating epithelial cancer cell is a prostatic cancer cell.

70. (New) The method of any one of claims 1, 53 and 54, wherein said probes are selected from the group consisting of:

- (a) tissue specific probes for determining the cellular origin of the cell;
- (b) probes specific cell tumor cell markers;
- (c) probes specific for aneuploidy;
- (d) probes specific for cellular markers of proliferation;
- (e) probes specific for cellular markers of cell growth inhibition;
- (f) probes specific for cell cycle arrest; and
- (g) probes specific for cellular markers of apoptosis; and
- (h) probes specific for hormonal receptors.

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*In the Sequence Listing:*

Please insert the Sequence Listing (pages 1-8) submitted herewith after the claims in the above-captioned application.